REMARKS

Claim 144 has been canceled. Claims 47, 52, 69 and 146 have been amended.

Rejection of Claims 52, 69, 144 and 146 Under 35 U.S.C. § 112, First Paragraph

Claims 52, 69, 144 and 146 have been rejected under 35 U.S.C. § 112, first paragraph, as it is said that the specification does not provide enablement for nucleic acids with indeterminate sequence identity to SEQ ID NO:5 or SEQ ID NO:7. Claim 144 has been canceled. Claims 52, 69 and 146 have been amended.

The Examiner states (page 5, lines 6-7 of office action), "...in the case of Claims 52 and 69, the claims require the DNA *complement* to have a transporter function, rather than the Ferroportin coding sequence...." Applicants do not understand this interpretation. It is only the polypeptide encoded by the isolated nucleic acid of the claims that has iron transport function.

Claims 52 and 69 have been amended to make clear that the claimed isolated nucleic acid is required to hybridize to <u>DNA consisting of SEQ ID NO:5</u> or to DNA consisting of the complement of SEQ ID NO:5. It is appropriate to include the sequences SEQ ID NO:5 (+ strand) and its complement (- strand) in the alternative. The isolated nucleic acid of the claims can be either double-stranded (+ and - strands) or a single-stranded + strand. The double stranded isolated nucleic acid would be able to hybridize to DNA consisting of SEQ ID NO:5 or to DNA consisting of the sequence complementary to SEQ ID NO:5. The single-stranded (+ strand) isolated nucleic acid would be able to hybridize to DNA consisting of the complement of SEQ ID NO:5.

With the amendments, Claims 52, 69 and 146 all refer to isolated nucleic acids that have definite structural properties and definite functional properties.

Rejection of Claims 135 and 138 Under 35 U.S.C. § 102(b)

Claims 135 and 138 have been rejected under 35 U.S.C. § 102(b), as they are said to be anticipated by Dodsworth *et al.* (1995, Accession No. HS153B8F).

The Examiner has stated that Accession No. HS153B8F is identical to the reference sequences at bases 237-476. Even if this is true, Dodsworth *et al.* do not teach a nucleic acid that

meets all the limitations of Claims 135 and 138. Dodsworth et al. do not teach a nucleic acid 15 to 30 nucleotides in length.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Carol A. Egner
Carol A. Egner

Registration No. 38,866

Telephone: (978) 341-0036 Facsimile: (978) 341-0136

Concord, MA 01742-9133

Dated: December 8, 2005